

AMENDMENTS TO THE SPECIFICATION

Page 1, before the first line, insert the following paragraph:

This application is a 371 of PCT/FR00/00091, filed January 18, 2000, to which priority is claimed. This application further claims priority to French patent applications 99/01406 and 99/16297 filed February 5, 1999, and December 22, 1999, respectively.

Page 7, lines 8-38; please amend the paragraphs as follows:

It is therefore clear from these various reactions-balances that the conversion envisaged by the invention also generates halogen-containing derivatives most particularly utilizable chlorine-containing derivatives such as HCl or Cl₂ (or H₂SO₄), which are found in the flue gases. Two ways of operation are possible:

- one consists in retreating them as effluents. Thus, it is possible to neutralize HCl with calcium carbonate $\text{CaCO}_3 \rightarrow \text{CaCO}_2$, which amounts to manufacturing CaCl₂, which is possibly utilizable (for example, for removing snow from roads);

- the other way consists in considering the conversion according to the invention as a means of manufacturing HCl or Cl₂ on an industrial scale, these being base chemicals widely used in the chemical industry. (It is possible, especially, for the chlorine obtained electrolytically, which is necessary for the manufacture of chlorinated polymers of the PVC or polyvinyl chloride type to be substituted with the HCl or the Cl₂ manufactured according to the invention). In this case, it would then be necessary to extract them from the flue gases and thus establish an industrial production line for HCl or Cl₂, for example by incorporating the apparatus for carrying out the process according to the invention directly in a chemical industry site needing these types of chlorinated product. Thus, utilizing the chlorinated derivatives formed makes it possible to further

lower the cost of the batch materials containing alkali metals necessary for the manufacture of glass.

Page 10, line 37, to page 11, line 17; please amend the paragraph as follows:

A process for producing precipitated silicas according to the invention can present the following steps, schematically:

→ reaction in a furnace equipped with submerged burners (notably oxy-gas or oxy-hydrogen ones), between a silica sand of the appropriate purity and sodium sulfate, with an amount of water to add in a controlled way depending on the amount of water generated by the combustion. Sodium silicate is thus formed according to the above-mentioned reaction. It is evacuated continuously, the SO_3 formed is transformed into H_2SO_4 , which is recuperated downstream,

→ sodium sulfate silicate produced with the appropriate $\text{SiO}_2/\text{Na}_2\text{O}$ modulus is then ~~attached~~ attacked by the recuperated H_2SO_4 . Silica precipitates, and is treated so as to confer to it the appropriate properties according to its uses 'additives for rubber, ...)

→ during this reaction, sodium sulfate is again formed, which can be concentrated and recycled in the furnace equipped with submerged burners as a source of sodium.

Page 12, lines 28-36; please amend the paragraph as follows:

Different kinds of combustible wastes can be mixed. For this application, it is more appropriate to make a silicate rich in ~~alkaline-earth~~ alkaline-earth metals, or even only made of alkaline-earth silicate: the aim being to render waste inert, and not to make a high quality glass, it is advantageous to use mostly alkaline-earth silicates because the

raw material carrying these alkaline-earth metals is less expansive than ~~to~~ the one carrying alkali metals.